

Fear of debt and Higher Education participation

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FEAR OF DEBT AND HIGHER EDUCATION PARTICIPATION

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Introduction

This paper reports on research into prospective students' attitudes toward debt and their decisions about whether or not to apply to University. The study was commissioned originally by Universities UK and HEFCE and undertaken by Professor Claire Callender of South Bank University and the Open University Centre for Higher Education Research and Information (CHERI). The full findings of the study are described elsewhere (Callender, 2003); here we concentrate in more detail on the issue of debt and participation in higher education (HE).

Student debt was a recurring theme in the lead up to the 2004 Higher Education Act, which contains the most recent reforms of financial support for full-time students in England. Concern focused on the impact of student debt on access to HE and on the Westminster government's desire to widen participation: now symbolised by their pledge to increase participation to 50 per cent of 18-30 year olds by 2010 (DfES, 2003). Yet few studies have attempted to explore this issue in a statistically robust manner. This paper attempts to fill that gap. It examines the relationship between prospective HE students' attitudes to debt and their decisions about whether or not to enter HE. Using data derived from a survey of just under 2,000 prospective students, it shows how those from low social classes are more debt averse than those from other social classes, and are far more likely to be deterred from going to university because of their fear of debt, even after controlling for a wide range of other factors. The paper concludes that these findings pose a serious policy dilemma for the Westminster government.

Student funding policies in Britain are predicated on the accumulation of debt. Student loans, first introduced in 1990, became the key source of financial support for full-time higher education (HE) students following the 1998 Teaching and Higher Education Act. The Act abolished mandatory maintenance grants for students' living costs and replaced them exclusively with loans. It also changed the methods for repaying the loans on graduation. Repayment became more closely linked to graduates' incomes while pegging the interest rates to inflation remained unchanged. The Act also introduced means-tested tuition fees for the first time.

The 2004 Higher Education Act similarly relies on student loans as the mechanism for repaying, on graduation, variable tuition fees. All new English domicile students entering university in 2006 will pay these fees, irrespective of their means. In addition, loans for living costs will remain a central feature of student support. However, the value of these loans for maintenance will be reduced for those low-income students eligible for a new means-tested student grant, to be introduced initially in 2004.¹

With the phasing out of grants, more students are taking out student loans and borrowing larger sums of money for their living costs. Between 1995/6 and 2002/03 loan take-up rose from 59 per to

¹ With devolution, student funding arrangements vary within the UK. This article focuses on provision in England. The 1998 Act applies only to English and Welsh domicile students while the 2004 Act applies only to English domicile students. In Scotland since 2000, low-income students can receive bursaries, and instead of tuition fees, students contribute to a Graduate Endowment Fund on graduation. Wales similarly introduced bursaries for low-income students in 2002. At the time of writing the Scottish Executive and the Welsh Assembly were undecided about whether to introduce variable tuition fees. For a full exposition of the various student funding arrangements in the UK see Richards and Woodhall (forthcoming).

81 per cent while the average size of the loan more than doubled from £1,252 to £3,130 (DfES, 2004). With their growing value, student loans also form a larger share of students' total income – nearly a half in 2002/3 compared with under a third in 1998/9 (Callender and Wilkinson, 2003).

Student loans make up the majority of all students' borrowings. In 2002/03, student loans constituted 85 per cent of students' outstanding debt, up from 74 per cent in 1998/99.² Inevitably, with more students taking out loans and borrowing larger sums, student debt has escalated. Some 92 per cent of students graduating in 2003 anticipated leaving university with debts compared with 81 per cent in 1999. The average debt of students graduating in 2003 amounted to £8,666. This was two and half times more than the debts of those who graduated in 1998 (Callender and Wilkinson, 2003).

But debt is unequally distributed. Students who are poor before going to university are more likely to be in debt and to leave university with the largest debts, while better-off students are less likely to have debts and leave with the lowest debts. In 2003, students whose parental annual income was less than £20,480 owed an average of £9,708, and half owed more than £10,392. Students with parental incomes over £30,502 owed just £6,806. So on graduation, the poorest students were 43 per cent more in debt than the richest (Callender and Wilkinson, 2003).

What is the research evidence that debt or perceptions of debt may impact on the decision to enter HE? There is a considerable body of research that examines the complex factors affecting young people's access to higher education, which shows that financial concerns play a major role in the decision making process of whether or not to enter higher education (Connor et al, 1999; Knowles, 2000; Connor et al, 2001; Davies et al 2002; NAO 2002; Nat West, 2003; Forsyth and Furlong, 2003; Archer et al, 2003), and that the 'overriding negative perception of going to university, for all the potential entrants, was its cost' (Connor et al, 2001).

Similarly, there is a consensus in this literature that prospective students from lower socio-economic backgrounds are more likely than those from better-off families to report they are deterred by the costs of HE and the prospects of building up large debts, particularly student loan debt, (Woodrow, 1998; Watt, 1999; Woodrow, 1999; Connor et al, 1999; Connor et al 2001; Knowles 2000; Forsyth and Furlong, 2000 and 2003;), as are mature students in contrast to younger students (Connor et al, 1999; Connor et al, 2001; Ross et al, 2002).

However, none of these studies have been able to quantify, in statistical terms, the impact of debt on HE entry. Nor have they examined whether debt aversion plays a unique deterrence role, after taking into account many other reasons why people may opt out of going to university.

Method

This survey of prospective HE students – final-year students in FE and sixth forms, studying for qualifications that allow entry to HE – was conducted on a stratified random sample of schools and

² Thus, a lower proportion of students' total borrowings is now derived from commercial sources of credit and overdrafts but the average amount of money students borrow from these sources has risen threefold since 1998/99.

colleges in 2002. Data were collected using in-class self-completion questionnaires, handed out to pupils by teachers. There were two response rates: one by institution and one by student. On the first, 101 institutions (at 101 sampling points) agreed to take part with 82 (81 per cent) returning completed questionnaires. On the second, 1,954 out of 3,582 sent questionnaires were returned completed, yielding a 55 per cent response rate. Final data were weighted to the national profile of students by establishment type and qualification taken. For more details of the methodology see Appendix I of Callender (2003).

The sample

The majority of respondents fell into the following separate categories: female (59 per cent); under the age of 25 (94 per cent); white (81 per cent); single (91 per cent); and, childless (95 per cent). Just over half (55 per cent) came from families in the top three social class while just over a quarter were from lower three social classes. Two-thirds of all respondents were studying in the FE sector, which included general FE colleges and some sixth form colleges. This left just over a quarter of all those surveyed attending state secondary schools, and less than one in ten attended private schools. Of the qualifications being pursued, nearly half of all respondents were taking A- or A/S-levels or Scottish Highers; most of the rest were studying for some type of vocational qualification. Just under two in five of those studying A-levels anticipated getting high grades (BBC+). In addition, nearly three-quarters had decided to enter HE and had already or intended to apply for a place. A further 12 per cent were still undecided. This left 15 per cent who had decided not to enter HE.

Table 1 shows considerable variation between respondents depending on the type of educational institution they attended. While the majority of those attending both state schools and in FE colleges were women, most of the pupils at independent schools were men. The age distribution of school leavers in both the public and private sector was similar – all were aged under 25; nearly all were single and childless. However, a sixth of FE students were over 25 and around one in ten had a partner and/or children.

One of the biggest differences between respondents at the different types of educational institution was their social class composition. Pupils at independent schools were far more likely to come from families where the chief earner was in a managerial or professional occupation. Nearly two-thirds were from such families – double the proportion in the FE sector. In addition, nearly 90 per cent of pupils at independent schools came from families in the top three social classes, compared with close to 60 per cent attending state schools and a half studying in the FE sector. Those studying in the private sector came from the wealthiest families; those in FE were from the poorest families.

Respondents' qualification, expected A-level grades and HE entry decision, all of which were interlinked, were also associated with the type of educational institution they attended. Thus, all independent school pupils were taking A-levels, nearly three-quarters expected high grades, and most had decided to go on to university. By contrast, the majority of FE students were taking vocational qualifications, only a quarter were taking A-levels, and less than a quarter of them anticipated getting high scores. In contrast to independent school pupils, just over two-thirds of FE students had decided to go to university.

Table 1. Sample characteristics

| CHARACTERISTIC | State school | Independent school | FE sector | All |
|---------------------------------------|--------------|--------------------|-----------|-------|
| GENDER | | | | |
| Male | 38 | 58 | 40 | 41 |
| Female | 62 | 42 | 60 | 59 |
| AGE | | | | |
| < 25 | 100 | 100 | 84 | 94 |
| >= 25 | | | 16 | 6 |
| ETHNIC ORIGIN | | | | |
| White | 80 | 83 | 81 | 81 |
| Non-white | 20 | 17 | 19 | 19 |
| SOCIAL CLASS | | | | |
| Managerial and professional | 38 | 63 | 31 | 35 |
| Intermediate | 5 | 2 | 7 | 6 |
| Small employer | 15 | 21 | 13 | 14 |
| Lower supervisory and technical | 8 | 1 | 11 | 9 |
| Semi-routine and routine | 10 | 1 | 15 | 13 |
| Never worked/Long-term unemployed | 5 | 2 | 5 | 4 |
| Missing | 19 | 10 | 18 | 18 |
| MARITAL STATUS | | | | |
| Single | 95 | 96 | 89 | 91 |
| Married/co-habiting | 1 | 1 | 6 | 5 |
| Widowed/separated/divorced | 0 | 1 | 2 | 1 |
| Not stated | 4 | 3 | 3 | 3 |
| FAMILY TYPE | | | | |
| Single, childless | 99 | 99 | 90 | 93 |
| Couple, childless | 1 | 1 | 2 | 2 |
| Single, living with children | 0 | 0 | 3 | 2 |
| Couple, living with children | 0 | 0 | 5 | 3 |
| TYPE OF EDUCATION INSTITUTION | | | | |
| State secondary school | 100 | 0 | 0 | 27 |
| Independent school | 0 | 100 | 0 | 7 |
| FE college (inc. sixth form colleges) | 0 | 0 | 100 | 66 |
| QUALIFICATION AIM | | | | |
| A/AS-levels/Scottish Highers | 87 | 100 | 25 | 48 |
| NVO/GNVQ/SVQ Level 3/AVCEs | 13 | 0 | 64 | 43 |
| Access course | 0 | 0 | 5 | 3 |
| Other FE qualification | 0 | 0 | 6 | 5 |
| DECISION ABOUT ENTERING HE | | | | |
| Applied/intend to apply | 78 | 98 | 68 | 73 |
| Undecided | 11 | 1 | 14 | 12 |
| Decided not to go | 11 | 1 | 18 | 15 |
| EXPECTED A-LEVEL/HIGHERS GRADE | | | | |
| =>280 (BBC+) | 37 | 72 | 28 | 39 |
| 1-279 (<BBC) | 37 | 16 | 45 | 37 |
| Not stated | 24 | 12 | 27 | 24 |
| N (weighted) | 528 | 137 | 1,288 | 1,953 |

Measuring debt attitudes

Two aspects of attitudes toward debt were measured: general levels of debt aversion and a more specific cost/benefit balance judgement concerning University. In order to gauge general debt aversion, students were asked the extent to which they agreed or disagreed with three attitude statements: 'Owing money is basically wrong'; 'There is no excuse for borrowing money'; and, 'You should always save up first before buying something'. Exploratory factor analysis was used to calculate factor scores on these three items, creating one variable that reflected students' levels of debt aversion or tolerance.

The same procedure generated a second variable: the perceived balance of the costs and benefits of going to University. This was measured by asking respondents to agree or disagree to four attitude statements: 'Borrowing money to pay for a university education is a good investment'; 'Student loans are a good thing because it allows students to enjoy university life'; 'Students do not worry about their debts while at University because they will get well-paid jobs when they graduate'; and, 'It is not worth getting in debt just so you can get a degree' (recoded). Together, these measures solicited from prospective University students some kind of balance of their perceptions of the debts they might accrue against their attitudes towards the short-term and long-term benefits of HE.

Results

Was social class related to attitudes toward debt?

The social class measure collapsed a six-level variable – a variant of the Office of National Statistics' Social Economic Class schema – into three categories. Those assigned to the lower-income group were from a family where the breadwinner was in a semi-routine or routine profession, or had never worked, or was in long-term unemployment. The medium class group was comprised of those where the breadwinner was in an intermediate or lower supervisory / technical occupation or was a small employer or own account worker. The upper class group contained those where the breadwinner was in managerial or professional employment³.

There were statistically significant differences in the attitudes toward debt (both debt aversion and the cost/benefit balance) between social classes. Those from the lower-income group were more debt averse than those in the middle and upper classes ($p < .0005$; $F_{2,1439} = 9.748$). Similarly, those from the lower-income group saw a more negative balance between the costs and benefit of going to University (e.g. the costs loomed comparatively larger than the gains) than those in the middle and upper class groups ($p = .003$; $F_{2,1408} = 5.738$).

But it was important to control for other factors while considering such difference, thus identifying the unique contribution of attitudes toward debt. Table 2 shows that the lower-income group was more debt averse than the other groups, even after holding constant the type of educational institution they attended (e.g. state school, Further Education college), gender, ethnicity and age.

³ Of course, the social class categories should not be seen as strictly hierarchically ordered, nor should they be seen as reflecting mutual exclusivity in terms of bands of income or other criteria. There may be significant overlap on many of the criteria that determine social class between individuals in each of the groups – groups that John Goldthorpe prefers to call the 'working class', the 'intermediate class' and the 'salariat' (personal communication, 2004).

Table 2. Ordinary Least Squares regression model predicting debt aversion
(N=1,390; 472 missing)

| Variables | B | Std. Error | p |
|--|--------|------------|---------|
| (Constant) | -0.410 | 0.097 | <0.0005 |
| SOCIAL CLASS – reference LOW | | | |
| Medium | 0.148 | 0.057 | 0.010 |
| High | 0.201 | 0.057 | <0.0005 |
| TYPE OF INSTITUTION ATTENDED – reference FE SECTOR | | | |
| Independent school | 0.186 | 0.081 | 0.023 |
| State school | 0.120 | 0.048 | 0.013 |
| GENDER – reference MALE | | | |
| Female | 0.077 | 0.043 | 0.072 |
| ETHNICITY – reference NON-WHITE | | | |
| White | 0.227 | 0.059 | <0.0005 |
| AGE – reference OVER 21 | | | |
| Under 21 | 0.061 | 0.077 | 0.428 |

R²=0.035; F=7.132, df=7, p<0.0005

In contrast, the class effect on the cost/benefit balance was not statistically significant once one added other explanatory variables into the regression model (not shown here for reasons of space). These additional explanatory variables were educational institution, gender, ethnicity and age – as with debt aversion (Table 2). But also included were four factors that represented a general orientation towards University: perceptions of the effect of University on the future career, the importance of going to University as a social and lifestyle experience, the degree of encouragement received from family and friends, and a general sense of what University is actually like⁴.

Debt aversion, class and HE participation

The next step was to examine whether debt aversion and social class predicted the decision to apply to University. Table 3 presents the results of two logistic regression models estimated on the entire sample. Model I included as explanatory variables: debt aversion, socio-economic factors and educational achievement. Model II added the four variables that comprised the general orientation towards University.

⁴ These factors were included in this OLS regression, and not in the OLS regression for debt aversion, because the cost/benefit balance involved some assessment of the benefits of University balanced against the financial costs. It may be that the difference in this cost/benefit balance across the social classes was merely to do with differential assessments of solely the benefits of University. Controlling for these factors allowed one to isolate the unique contribution of perceived benefits balanced against perceived costs.

Table 3. Logistic regression models for HE participation
(Model I: N=1,104; 758 missing; Model II: N=1,021; 841 missing)

| Variables | Model I | | | | Model II | | | |
|--|---------|------------|---------|--------|----------|------------|---------|---------|
| | B | Std. Error | p | Exp(B) | B | Std. Error | p | Exp(B) |
| (Constant) | 4.405 | 0.627 | <0.0005 | 81.890 | 6.983 | 0.993 | <0.0005 | 1077.82 |
| SOCIAL CLASS – reference LOW | | | | | | | | |
| Medium | -0.755 | 0.214 | <0.0005 | 0.470 | -0.735 | 0.257 | 0.004 | 0.479 |
| High | -1.065 | 0.192 | <0.0005 | 0.345 | -1.075 | 0.223 | <0.0005 | 0.341 |
| TYPE OF INSTITUTION ATTENDED – reference FE SECTOR | | | | | | | | |
| Independent school | 2.093 | 1.237 | 0.091 | 8.106 | 1.730 | 1.252 | 0.167 | 5.642 |
| State school | -0.508 | 0.299 | 0.089 | 0.602 | -0.789 | 0.368 | 0.032 | 0.454 |
| GENDER – reference MALE | | | | | | | | |
| Female | 0.278 | 0.165 | 0.093 | 1.321 | 0.031 | 0.198 | 0.875 | 1.032 |
| ETHNICITY – reference NON-WHITE | | | | | | | | |
| White | -2.098 | 0.333 | <0.0005 | 0.123 | -2.157 | 0.417 | <0.0005 | 0.116 |
| AGE – reference OVER 21 | | | | | | | | |
| Under 21 | -1.305 | 0.294 | <0.0005 | 0.271 | -1.461 | 0.345 | <0.0005 | 0.232 |
| MEMBER OF FAMILY BEEN TO UNIVERSITY – reference MOTHER NOT BEEN | | | | | | | | |
| Mother been to University | 0.159 | 0.227 | 0.485 | 1.172 | -0.078 | 0.279 | 0.779 | 0.925 |
| PREDICTED GRADES | | | | | | | | |
| Continuous - low to high (AS level or 'other' students = zero) | 0.341 | 0.083 | <0.0005 | 1.406 | 0.287 | 0.093 | 0.002 | 1.333 |
| STUDYING FOR AS LEVELS – reference NO | | | | | | | | |
| Yes | -0.328 | 0.526 | 0.533 | 0.720 | -0.408 | 0.623 | 0.513 | 0.665 |
| STUDYING FOR 'OTHER' QUALIFICATION – reference NO | | | | | | | | |
| Yes | -0.331 | 0.412 | 0.422 | 0.719 | -0.618 | 0.488 | 0.205 | 0.539 |
| DEBT AVERSION - continuous | | | | | | | | |
| Averse to not averse | 0.207 | 0.105 | 0.049 | 1.230 | 0.407 | 0.128 | 0.001 | 1.502 |
| COST/BENEFIT BALANCE OF UNIVERSITY - continuous | | | | | | | | |
| Positive to negative balance of benefits and costs | -0.302 | 0.107 | 0.005 | 0.739 | 0.208 | 0.140 | 0.137 | 1.231 |
| THE EFFECT OF UNIVERSITY ON FUTURE EARNINGS / CAREER - continuous | | | | | | | | |
| Important to not important | | | | | -0.418 | 0.060 | <0.0005 | 0.659 |
| IMPORTANCE OF UNIVERSITY SOCIALLY / LIFESTYLE / WORTHWHILE GENERAL EXPERIENCE - continuous | | | | | | | | |
| Important to not important | | | | | -0.062 | 0.068 | 0.362 | 0.940 |
| DEGREE OF ENCOURAGEMENT RECEIVED FROM FAMILY & FRIENDS - continuous | | | | | | | | |
| None to much encouragement | | | | | 0.261 | 0.043 | <0.0005 | 1.298 |
| HAVING A GOOD IDEA OF WHAT UNIVERSITY IS LIKE - continuous | | | | | | | | |
| Good idea to bad idea | | | | | -0.360 | 0.115 | 0.002 | 0.698 |

Model I shows that both types of attitudes toward debt were important, even after controlling for educational achievement⁵. The $\exp(B)$ for debt aversion of 1.230 indicated that for every one unit increase (meaning the respondent was getting less debt averse), the odds of applying to University were multiplied by 1.230, or increased by 23%. Other important factors were: social class, ethnicity, age and whether the mother has been to University.

But more than this, debt aversion survived the introduction of a broader orientation toward going to University (Model II). This was important. One might argue that attitudes toward debt were part of a cluster of overlapping factors related to HE participation: (a) class, (b) educational achievement, and (c) positive attitudes to the benefits and experience of going to University, and receiving encouragement from family and friends to apply. If we did not include all these in the regression model then it might be that debt attitudes somehow 'swallowed up' the variance, or acted as a proxy for these other factors. Yet debt attitudes remained statistically significant even after controlling for these other explanatory variables. This substantially increased our confidence in the finding that debt aversion was a deterrent factor, at least when testing the model on the entire sample.

Model II also showed that the cost/benefit balance was no longer statistically significant once one controlled for factors such as perceptions of the benefits of going to University, the degree of encouragement received from family and friends to apply, and having a good or bad sense of what University was actually like. As such, attitudes towards the positive aspects of University were more important in deciding to apply than the balancing of benefits against financial costs.

Overall then, debt aversion had a significant impact on participation in HE, looking across the full sample. Holding everything else constant, the most debt tolerant individual in our sample was just over five times more likely to apply to University than the most debt averse individual⁶. The cost/benefit balance remained important until one included all the other explanatory factors, upon which the effect lost its statistical significance.

Was debt aversion a greater deterrent to those from lower-income households?

So far we have shown that, on average, debt aversion was a deterrent to applying to University. We have also shown that those in the lower-income group were more debt averse than those in the middle and upper classes. However, it may be that our analysis of the whole sample masked variability among particular sub-groups; it may be that the effect of attitudes toward debt on HE participation was different according to social class.

To address this issue we introduced interaction terms into the logistic regression models, estimating whether class moderated the impact of attitude towards debt on HE participation. Table

⁵ This was a summary of the predicted grade data for A level and Scottish Higher students. The students who were not taking A levels or Scottish Highers were given a zero in the predicted grade variable that would otherwise range from 1 (1-199, less than EEE) to 8 (360+, or AAA+). Two dummy variables were also included, which indicated whether students were working towards AS levels or 'other qualification'. Thus, we can see the effect of type of qualification, comparing the effect of doing either AS levels or an 'other' qualification to being either an A level or Scottish Higher student with zero expected grades (Table 1).

⁶ The range for the debt aversion variable was 4. Multiplying the beta coefficient of 0.407 (from Model II) by 4 and taking the exponential gave a figure of 5.09. The odds of moving from the minimum (the most debt averse) to the maximum (the most debt tolerant) were thus multiplied by 5, holding all other factors constant.

4 presents the parameter estimates of two logistic regression models. The lower-income group was the referent category for both models.

Starting with Model I, debt aversion had a statistically significant effect on participation for those in the lower-income group (see the main effect). But this was not the case for those in the middle class group. There was a statistically significant interaction between debt aversion and membership of this category (the beta coefficient of $-.494$ balancing out the $.423$ for the main effect). For the higher social class, the interaction term was not statistically significant, although the beta coefficient of $-.067$ meant the effect was a little weaker than in the case of the lower-income group.

We then included the full set of explanatory variables into the model. Here, the effect of debt aversion for the lower social class group was even stronger (Model II from Table 4). The interaction term for the middle-class group remained statistically significant, while the interaction term was very close to significance for the upper-class group.

Overall then, debt aversion was a factor for those from the lower income group, but not for those from the middle-class. The effect was on the cusp of statistical significance for the upper-class group.

But what about the more specific attitudes toward the debt: the balance of perceived cost against perceived benefit? Among the lower income group, the cost/benefit balance was not a statistically significant predictor in Model I or Model II (Table 4). In addition, the interactions between the cost/benefit balance and middle and higher social class membership were not statistically significant; while the beta coefficients of the interaction terms indicated that the effect increased with a movement from the lower class to the medium and (particularly) the higher class, we did not have enough evidence to say this was something other than sampling variation.

Table 4. Logistic regression models for deciding to enter HE – including interaction terms involving class and attitudes toward debt

(Model I: N=1,338, 524 missing; Model II: N=1,021, 841 missing)

| Variables | Model I | | | | Model II | | | |
|--|---------|------------|---------|--------|----------|------------|---------|---------|
| | B | Std. Error | p | Exp(B) | B | Std. Error | p | Exp(B) |
| (Constant) | 0.880 | 0.140 | <0.0005 | 2.411 | 6.275 | 0.996 | <0.0005 | 531.172 |
| SOCIAL CLASS – reference LOW | | | | | | | | |
| Medium | -0.165 | 0.173 | 0.339 | 0.848 | -0.422 | 0.251 | 0.092 | 0.656 |
| High | 0.850 | 0.188 | <0.0005 | 2.340 | 0.721 | 0.277 | 0.009 | 2.057 |
| DEBT AVERSION - continuous | | | | | | | | |
| Averse to not averse | 0.423 | 0.184 | 0.021 | 1.527 | 1.061 | 0.312 | 0.001 | 2.890 |
| COST/BENEFIT BALANCE OF UNIVERSITY - continuous | | | | | | | | |
| Positive to negative balance | -0.185 | 0.163 | 0.258 | 0.831 | 0.470 | 0.289 | 0.104 | 1.601 |
| INTERACTION: MEDIUM SOCIAL CLASS WITH . . . | | | | | | | | |
| DEBT AVERSION | -0.494 | 0.229 | 0.031 | 0.610 | -0.916 | 0.364 | 0.012 | 0.400 |
| COST/BENEFIT BALANCE OF UNIVERSITY | -0.187 | 0.208 | 0.369 | 0.829 | -0.047 | 0.336 | 0.890 | 0.954 |
| INTERACTION: HIGH SOCIAL CLASS WITH . . . | | | | | | | | |
| DEBT AVERSION | -0.067 | 0.242 | 0.782 | 0.935 | -0.733 | 0.382 | 0.055 | 0.480 |
| COST/BENEFIT BALANCE OF UNIVERSITY | -0.418 | 0.225 | 0.063 | 0.658 | -0.632 | 0.360 | 0.079 | 0.531 |
| TYPE OF INSTITUTION ATTENDED – reference FE SECTOR | | | | | | | | |
| Independent school | | | | | 1.781 | 1.261 | 1.994 | 5.937 |
| State school | | | | | -0.785 | 0.376 | 0.037 | 0.456 |
| GENDER – reference MALE | | | | | | | | |
| Female | | | | | 0.069 | 0.200 | 0.731 | 1.071 |
| ETHNICITY – reference NON-WHITE | | | | | | | | |
| White | | | | | -2.182 | 0.413 | <0.0005 | 0.113 |
| AGE – reference OVER 21 | | | | | | | | |
| Under 21 | | | | | -1.516 | 0.344 | <0.0005 | 0.220 |
| MEMBER OF FAMILY BEEN TO UNIVERSITY – reference MOTHER NOT | | | | | | | | |
| Mother been to University | | | | | 0.012 | 0.287 | 0.967 | 1.012 |
| PREDICTED GRADES - continuous | | | | | | | | |
| Low to high (AS level or 'other' students = zero) | | | | | 0.308 | 0.095 | 0.001 | 1.361 |
| STUDYING FOR AS LEVELS – reference NO | | | | | | | | |
| Yes | | | | | -0.362 | 0.634 | 0.568 | 0.696 |
| STUDYING FOR 'OTHER' QUALIFICATION – reference NO | | | | | | | | |
| Yes | | | | | -0.539 | 0.492 | 0.274 | 0.584 |
| THE EFFECT OF UNIVERSITY ON FUTURE EARNINGS / CAREER - continuous | | | | | | | | |
| Important to not important | | | | | -0.407 | 0.061 | <0.0005 | 0.666 |
| IMPORTANCE OF UNIVERSITY SOCIALLY / LIFESTYLE / WORTHWHILE GENERAL EXPERIENCE - continuous | | | | | | | | |
| Important to not important | | | | | -0.079 | 0.070 | 0.255 | 0.924 |
| DEGREE OF ENCOURAGEMENT RECEIVED FROM FAMILY & FRIENDS- continuous | | | | | | | | |
| None to much encouragement | | | | | 0.260 | 0.044 | <0.0005 | 1.297 |
| HAVING A GOOD IDEA OF WHAT UNIVERSITY IS LIKE - continuous | | | | | | | | |
| Good idea to bad idea | | | | | -0.329 | 0.120 | 0.006 | 0.719 |

Testing the models for each social class group

We then tested the models for each social class group individually. While this was a largely exploratory approach, it was to some degree illustrative because it provided a summary of the various factors that were important for each group. The parameter estimates are not included here for space reasons.

For the lower-income group, the following factors were important: ethnicity, age, debt aversion, perceptions of the effect of going to University on future earnings, receiving encouragement from family and friends and knowing what University is like. Educational achievement was statistically significant in Model II.

For the middle-class group, the following factors were important: going to a state school, ethnicity, age, educational achievement, perceptions of the effect of University on future earnings and encouragement received from family and friends.

For the upper-class group, the following factors were important: the effect of going to University on future earnings and encouragement received from family and friends. In Model I age and the cost/benefit balance were also important. In Model II ethnicity was, but age and the cost/benefit balance were not. Nor was debt aversion – the interaction effect was on the cusp of statistical significance (Table 4) so one could conclude that debt aversion had a very weak deterrent effect, if any, for this group.

Testing the model on the A-level students

So far we have seen that debt aversion was an important factor only for those from lower-income homes, and the jury is out for the upper class (Table 4). The cost/benefit balance was significant for those from the middle and upper class in simpler models but it did not survive the introduction of the full range of explanatory factors into the model. Thus far, debt aversion had a deterrent factor, but there was only good evidence for this among those from lower-income families.

But it was important to test the models on one more sub-group – this time the A-level students. Recall that the measure of educational achievement comprised predicted A-level grades (with those not pursuing these qualifications set at a base-level of zero). Consequently, full information for this important control variable was only available for the A-level student group.

Table 5 shows that, among A-level students, neither debt aversion nor cost/benefit balance was statistically significant in Model II, and indeed debt aversion was not in Model I. In fact, testing the bivariate relationship indicated that debt aversion was not statistically significant among this group. So, when considering A-level students, where we could more satisfactorily control for educational achievement, debt aversion did not have a deterrent effect on HE participation.

Table 5. Logistic regression models for deciding to enter HE – for A-level students
(Model I: N=517; 394 missing; Model II: N=490; 421 missing)

| Variables | Model I | | | | Model II | | | |
|--|---------|------------|-------|--------|----------|------------|-------|---------|
| | B | Std. Error | p | Exp(B) | B | Std. Error | p | Exp(B) |
| (Constant) | 2.577 | 1.434 | 0.072 | 13.162 | 8.248 | 2.573 | 0.001 | 3820.16 |
| SOCIAL CLASS – reference LOW | | | | | | | | |
| Medium | -0.709 | 0.704 | 0.314 | 0.492 | -1.640 | 1.006 | 0.103 | 0.194 |
| High | 0.088 | 0.715 | 0.902 | 1.092 | -0.182 | 0.973 | 0.851 | 0.833 |
| TYPE OF INSTITUTION ATTENDED – reference FE SECTOR | | | | | | | | |
| Independent school | 1.967 | 1.263 | 0.119 | 7.148 | 2.896 | 1.564 | 0.064 | 18.102 |
| State school | -0.261 | 0.432 | 0.545 | 0.770 | 0.105 | 0.560 | 0.851 | 1.111 |
| GENDER – reference MALE | | | | | | | | |
| Female | 0.458 | 0.411 | 0.265 | 1.581 | -0.025 | 0.536 | 0.963 | 0.975 |
| ETHNICITY – reference NON-WHITE | | | | | | | | |
| White | -1.795 | 0.912 | 0.049 | 0.166 | -0.872 | 1.081 | 0.420 | 0.418 |
| AGE – reference OVER 21 | | | | | | | | |
| Under 21 | -0.069 | 1.171 | 0.953 | 0.934 | -0.163 | 1.714 | 0.924 | 0.850 |
| MEMBER OF FAMILY BEEN TO UNIVERSITY – reference MOTHER NOT BEEN | | | | | | | | |
| Mother been to University | -0.633 | 0.478 | 0.186 | 0.531 | -2.293 | 0.682 | 0.001 | 0.101 |
| PREDICTED GRADES - continuous | | | | | | | | |
| Low to high (AS level or 'other' students = zero) | 0.354 | 0.098 | 0.000 | 1.425 | 0.345 | 0.125 | 0.006 | 1.412 |
| DEBT AVERSION - continuous | | | | | | | | |
| Averse to not averse | 0.030 | 0.276 | 0.913 | 1.031 | 0.514 | 0.379 | 0.176 | 1.672 |
| COST/BENEFIT BALANCE OF UNIVERSITY - continuous | | | | | | | | |
| Positive to negative balance of benefits and costs | -0.740 | 0.259 | 0.004 | 0.477 | -0.488 | 0.383 | 0.203 | 0.614 |
| THE EFFECT OF UNIVERSITY ON FUTURE EARNINGS / CAREER - continuous | | | | | | | | |
| Important to not important | | | | | -1.016 | 0.203 | 0.000 | 0.362 |
| IMPORTANCE OF UNIVERSITY SOCIALLY / LIFESTYLE / WORTHWHILE GENERAL EXPERIENCE - continuous | | | | | | | | |
| Important to not important | | | | | -0.460 | 0.190 | 0.015 | 0.631 |
| DEGREE OF ENCOURAGEMENT RECEIVED FROM FAMILY & FRIENDS - continuous | | | | | | | | |
| None to much encouragement | | | | | 0.397 | 0.141 | 0.005 | 1.487 |
| HAVING A GOOD IDEA OF WHAT UNIVERSITY IS LIKE - continuous | | | | | | | | |
| Good idea to bad idea | | | | | 0.100 | 0.314 | 0.751 | 1.105 |

However, might it be that A-level students had, on average, a different socio-economic composition to those not taking these qualifications? Put another way, were there more middle- and upper-class students in the A-level sub-sample? Recall that debt aversion was only an issue for those from lower-income families. Might it be that there were simply too few such individuals taking A-levels?

Table 6 shows that the two groups were indeed different, in terms of social class, type of educational institution being attended, whether their mother had gone to University, and whether they were intending to apply to University. There were only 84 A-level students from the lower-income group compared to 200 in the middle-class group and 332 in the upper-class group. So when we tested the model on this sub-group, we were mostly focusing on individuals from the middle and upper classes. This might explain why debt aversion was a factor for the entire sample (Table 3) but not for the A-level students (Table 5).

Table 6. Socio-economic characteristics of A-level and non-A-level students

| | Doing A-levels | Not doing A-levels |
|---------------------------------|----------------|--------------------|
| Applying to University | | |
| Yes | 88 | 63 |
| No | 5 | 21 |
| Undecided | 7 | 16 |
| Class | | |
| Low | 14 | 26 |
| Medium | 33 | 38 |
| High | 54 | 36 |
| Type of school/college attended | | |
| State secondary | 43 | 17 |
| Independent secondary | 17 | 1 |
| Sixth form college | 13 | 7 |
| FE college | 26 | 76 |
| Age | | |
| 17-20 | 98 | 86 |
| 21-24 | 1 | 5 |
| 25+ | 1 | 9 |

We also tested a simple interaction effect model containing class, debt aversion and the cost/benefit balance (Table 7). Neither debt aversion nor the cost/benefit balance was a statistically significant predictor of applying to University for any class. This was interesting. It was not that the introduction of educational achievement into the model made the difference, now that we could mobilize this control variable more effectively. Rather debt aversion was not a factor even at the bivariate level for this group. When we could control for educational achievement most efficiently we found that it was not necessary to do so: debt aversion was not an important predictor in the first place.

But again we must go back to the small number of A-level students from the lower-income group; there were only 84 A-level students from low-income families, with only 11 who had decided not to apply to University. While the partial regression coefficient was not statistically significant, the point estimate of 0.309 (Table 7) was close to the effect size when looking at the same effect for the whole sample (0.423 – see Table 4). Standard errors increase simply as a function of an increase

in sample size; it was possible, even probable, that the small n was simply not large enough to adequately detect an effect in the population.

Table 7. Logistic regression models for deciding to enter HE for just the A-level students – including interaction terms involving class and attitudes toward debt (N=684; 227 missing)

| Variables | B | Std. Error | p | Exp(B) |
|---|--------|------------|---------|--------|
| (Constant) | 1.911 | 0.356 | <0.0005 | 6.762 |
| SOCIAL CLASS – reference LOW | | | | |
| Medium | -0.226 | 0.421 | 0.591 | 0.797 |
| High | 0.630 | 0.434 | 0.147 | 1.878 |
| DEBT AVERSION - continuous | | | | |
| Averse to not averse | 0.309 | 0.478 | 0.519 | 1.362 |
| COST/BENEFIT BALANCE OF UNIVERSITY - continuous | | | | |
| Positive to negative balance | -0.199 | 0.454 | 0.662 | 0.820 |
| INTERACTION: MEDIUM SOCIAL CLASS WITH ... | | | | |
| DEBT AVERSION | -0.467 | 0.558 | 0.403 | 0.627 |
| COST/BENEFIT BALANCE OF UNIVERSITY | -0.429 | 0.526 | 0.415 | 0.651 |
| INTERACTION: HIGH SOCIAL CLASS WITH ... | | | | |
| DEBT AVERSION | -0.184 | 0.580 | 0.751 | 0.832 |
| COST/BENEFIT BALANCE OF UNIVERSITY | -0.644 | 0.537 | 0.231 | 0.525 |

Where did that leave us?

On the one hand debt aversion was a factor among those from a lower-income group not taking A-levels. On the other hand it seemed not be a factor among those from a lower-income group who were taking A-levels. Yet each had a caveat. We could not control for educational achievement as well as we hoped for those not taking A-levels. For those who were taking A-levels we had a very small sample size for those from lower-income families.

Perhaps the wisest conclusion is that we simply cannot say whether the small sample size was the reason why the effect of debt aversion among A-level students from the lower-income group was not statistically significant. Certainly no firm inferences should be made one way or the other about whether the effect holds in the population of A-level students. Moreover, we cannot say whether the failure to control for educational achievement was the reason why debt aversion had found to have a deterrent effect among those from lower-income families among students not studying for A-levels.

However, the findings did point towards a deterrent effect for debt aversion among those from lower-income families not taking A-levels. We cannot say the same thing for those studying for A-levels.

Conclusion

Our findings suggest that debt aversion is a class issue. Students from poorer backgrounds are more debt averse than those from other social classes. Among those studying for qualifications such as AS-levels, Scottish Highers, NVQs, GNVQs, SVQ Level 3s and AVCEs debt seems a

deterrence to HE. But this is only for those from lower-income families. It is a deterrence even after controlling for their aspirations and career/work objectives, the amount of encouragement they receive from their family and friends, and a whole host of other socio-demographic variables. We need further research to examine whether debt aversion is a deterrent for A-level students from lower-income families.

This has important implications for the Westminster government's widening participation policies. Only around 45 per cent of young people with Level 3 vocational qualifications go on to university by the age of 21 compared with a 90 per cent entry rate among those with A levels (Corney, 2004). Thus, there is considerable scope for increasing HE participation among the former, unlike the latter. They are a pool of HE entrants frequently overlooked but tend to come from lower-socio economic groups than A level students. Therefore, focusing on vocational students, could help the government to achieve its target of 50 per cent participation and to widen rather than just increase participation.

These finding suggests that debt aversion cannot be wished away by government and others, but poses a serious policy dilemma for them. Debt aversion has the greatest impact on the participation of prospective students from low-income families, the very group the government most wants to attract into HE. Similarly, those with the most anti-debt views are the focus of these policies. At the same time, student financial support policies, especially student loans, are predicated on the accumulation of debt. Student debt has increased, especially since the 1998 Teaching and Higher Education Act. It is set to rise yet further following the introduction of variable tuition fees in 2006. According to the government, it will rise to an average of £15,000 by 2009/10 (DfES, 2003a). So overall, the actual student support system potentially acts as a disincentive and obstacle to participation for those from low-income families who are the most reliant on student loans and leave university with the largest debts. The support system is in danger of deterring HE entry among those at the heart of the Westminster government's widening participation policies and thus undermines these policies. This highlights the contradictory nature of their student funding policies.

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